



**PATENT**  
Attorney Docket No. A-71138-1/RFT/RMS/RMK  
Dorsey File No. 468488-00214

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*In re* application of:

MAYO et al.

Serial No.: 10/074,679

Filing Date: February 11, 2002

For: *Method for the Generation of Proteins  
with New Enzymatic Function*

Examiner: Borin, Michael L.

Art Unit: 1631

EXPRESS MAIL EV 298967652 US

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying substitute for form PTO-1449. Copies of these references are enclosed.

The undersigned certifies that references listed on the enclosed form PTO/SB/08A-B, substitute for form PTO-1449, were first cited in the International Search Report of PCT/US02/21636 mailed on April 29, 2004, for the counterpart PCT application. A copy of the International Search Report for the counterpart PCT application is enclosed herewith.

Serial No.: 10/074,679  
Filing Date: February 11, 2002

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

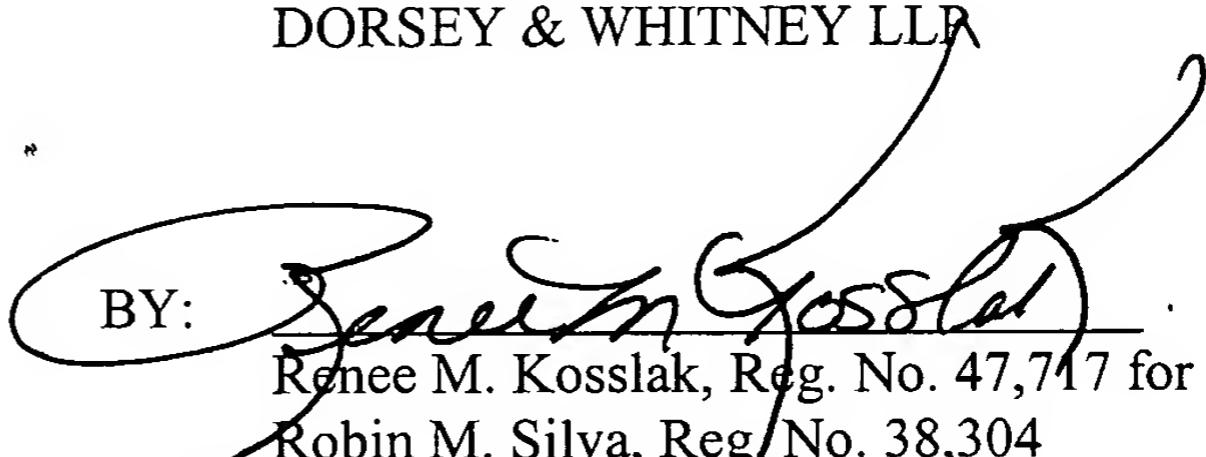
Pursuant to 37 C.F.R. § 1.97(c), enclosed is a check in the amount of \$180.00 as set forth in 37 C.F.R. § 1.17(p). While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (File No. 468488-00214; Docket No. A-71138-1/RFT/RMS/RMK).

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,

DORSEY & WHITNEY LLP

BY:

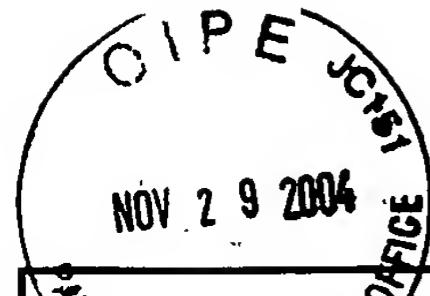
  
Renee M. Kosslek, Reg. No. 47,717 for  
Robin M. Silva, Reg. No. 38,304

Filed under 37 C.F.R. § 1.34(a)

Customer Number: 32940

Attachments:

Copy of International Search Report for PCT/US02/21636 mailed April 29, 2004;  
Form PTO/SB/8A-B, Substitute for Form PTO-1449  
7 cited references



INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(use as many sheets as necessary)

				Complete if Known	
Application Number	10/074,679				
Filing Date	February 11, 2002				
First Named Inventor	MAYO et al.				
Art Unit	1631				
Examiner Name	Borin, Michael L.				
Sheet	1	of	1	Attorney Docket Number	A-71138-1/RFT/RMS/RMK

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1				
	A2				
	A3				
	A4				

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
	B1	WO 01/42432 A2	06-14-2001	Medical Research Council		
	B2					
	B3					
	B4					

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	C1	COLLINET, B., et al., "Functionally Accepted Insertions of Proteins within Protein Domains," Journal of Biological Chemistry, 2000, 275(23):17428-17433.	
	C2	GORDON, D.B., et al., "Branch-and-Terminate: a combinatorial optimization algorithm for protein design," Structure, 1999, 7(9):1089-1097.	
	C3	HELLINGA, H.W., et al., "Construction of New Ligand Binding Sites in Proteins of Known Structure II. Grafting of a Buried Transition Metal Binding Site into <i>Escherichia coli</i> Thioredoxin," Journal of Molecular Biology, 1991, 222:787-803.	
	C4	KOHN, W.D., et al., "De novo design of $\alpha$ -helical coiled coils and bundles: models for the development of protein-design principles," Trends in Biotechnology, 1998, 16(9):379-389.	
	C5	VOIGT, C.A., et al., "Trading Accuracy for Speed: A Quantitative Comparison of Search Algorithms in Protein Sequence Design," Journal of Molecular Biology, 2000, 299:789-803.	
	C6	WILKS H.M., et al., "Alteration of enzyme specificity and catalysis by protein engineering," Current Opinion in Biotechnology, 1991, 2:561-567.	
	C7		
	C8		

Examiner Signature	Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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